

CLAIMS

1 1. A computer-implemented method for compressing data, the method
2 comprising:

3 applying a dynamic prediction function to the data to yield first compressed
4 data;

5 applying a Golomb coding function to the first compressed data to yield
6 second compressed data; and

7 outputting the compressed data.

1 2. The method of claim 1 wherein the data is image data.

1 3. The method of claim 1 wherein the data is audio data.

1 4. The method of claim 1 further comprising transforming the data from a
2 first domain to a second domain prior to applying the dynamic prediction function.

1 5. The method of claim 4 wherein the first domain is an RGB domain and the
2 second domain is a YUV domain.

1 6. The method of claim 4 wherein the first domain is a left and right channel
2 domain and the second domain is a UV domain.

1 7. The method of claim 1 wherein the first compressed data has a Laplacian
2 distribution.

1 8. A computer program product for compressing data, the computer
2 program product stored on a computer-readable medium containing executable
3 instructions configured to cause a computer to perform the steps of:
4 applying a dynamic prediction function to the data to yield first compressed
5 data;
6 applying a Golomb coding function to the first compressed data to yield
7 second compressed data; and
8 outputting the compressed data.

1 9. The computer program product of claim 8 wherein the data is image data.

1 10. The computer program product of claim 8 wherein the data is audio data.

1 11. The computer program product of claim 8 further comprising
2 instructions configured to cause a computer to transform the data from a first
3 domain to a second domain prior to applying the dynamic prediction function.

1 12. The computer program product of claim 11 wherein the first domain is
2 an RGB domain and the second domain is a YUV domain.

1 13. The computer program product of claim 11 wherein the first domain is a
2 left and right channel domain and the second domain is a UV domain.

1 14. The computer program product of claim 8 wherein the first compressed
2 data has a Laplacian distribution.

- 1 15. A system for compressing data, the system comprising:
2 a dynamic predictor for compressing a data stream using dynamically
3 predicted coefficient values in order to produce a first compressed
4 streaming having a Laplacian distribution;
5 an adaptive golomb Engine, communicatively coupled to the dynamic
6 predictor, for receiving the first compressed stream and further
7 compressing the first compressed stream to form a second compressed
8 stream.
- 1 16. The system of claim 15 wherein the data is image data.
- 1 17. The system of claim 15 wherein the data is audio data.
- 1 18. The system of claim 15 further comprising a pre-processing engine for
2 transforming the data from a first domain to a second domain prior to applying the
3 dynamic prediction function.
- 1 19. The method of claim 17 wherein the first domain is an RGB domain and
2 the second domain is a YUV domain.
- 1 20. The method of claim 17 wherein the first domain is a left and right
2 channel domain and the second domain is a UV domain.
- 1 21. A data compression system for compressing data, the system comprising:
2 receiving means receiving for data to be compressed;
3 dynamic predicting means, coupled to the receiving means, for applying a
4 dynamic prediction function to the data to yield first compressed data;

5 Golomb coding means, communicatively coupled to the dynamic predicting
6 means, for applying a Golomb coding function to the first compressed
7 data to yield second compressed data; and
8 outputting means, communicatively coupled to the Golomb coding means,
9 for outputting the compressed data.